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How do I make construction lines?

SketchUp has a robust 3D inference system that automatically generates many inference points and inference lines that are calculated from your model and the axes. In addition, you can use the Tape Measure and Protractor tools to create construction lines.

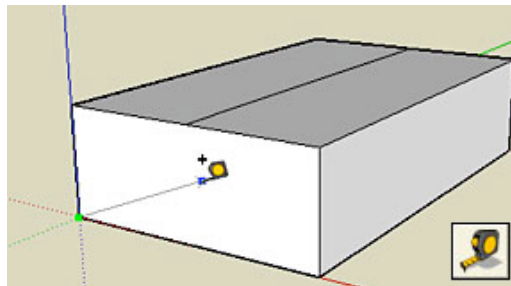
Note: The behavior of these tools is different in Google SketchUp (free) and SketchUp Pro 5:

- SketchUp Pro 5. By default, construction lines are created automatically when you use the Tape Measure and Protractor tools. To toggle measure-only mode:
 - Tape Measure tool. Press the Ctrl key (Mac = Alt key) while measuring.
 - Protractor tool. Press the Shift key while you are measuring the angle.
- Google SketchUp (free). By default, the Tape Measure and Protractor tools are in measure-only mode. To toggle constructions lines mode, click Ctrl (Mac = Option).

Tape Measure tool

With the Tape Measure tool, you can draw both construction lines (a continuous dashed line with no endpoints) and construction points (the endpoint of a fixed-length dashed line).

- To draw a construction line, click on any point on an edge between its two endpoints, draw away from the edge, and then click to set the position of the construction line, which is a dashed line parallel to the edge. As you are drawing, you can also determine the position of the construction line by typing an exact distance in the "Value Control Box" ("VCB").



- To draw a construction point, click an endpoint, for example, the end of a line or the corner of a rectangle, draw out to the point where you want the construction point to be placed, and then click to set that endpoint.

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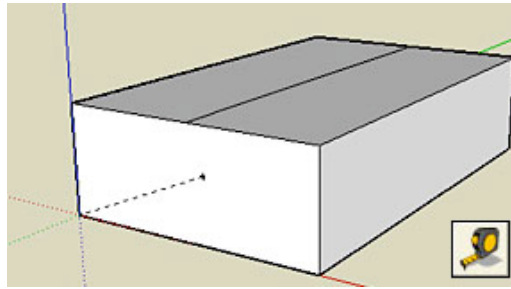
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Find answers, ask questions, and share your expertise with other users in the [Google SketchUp Help Group](#).

SketchUp Pro Users

Users of SketchUp Pro 5 or previous versions can discuss topics related to SketchUp Pro in the [SketchUp Pro Forums](#)

Posts on the user group and forums are not moderated by Google.



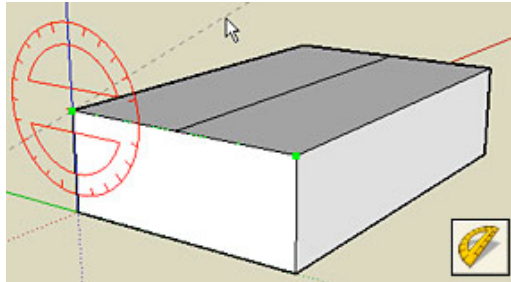
As you are drawing, you can also determine the position of the construction point by typing in the "VCB":

- An exact distance, for example, 10" or 30m.
- An offset relative to the starting point of the construction line using relative coordinates, for example, <73',8',14'>.
- An offset relative to the origin point (the point where the red, green, and blue axes intersect) using absolute coordinates, for example, [17m,26m,5m].

Note: When you use coordinates, the first number is the distance in the direction of the solid red axis line; the second number is the distance in the direction of the solid green axis line; and, the third number is the distance in the direction of the solid blue axis line. To move in the opposite direction (the direction of the dashed axes lines), use negative numbers.

Protractor tool

With the Protractor tool, you can draw a construction line that is positioned along the final leg of an angle.



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